

# SOT-23 Plastic-Encapsulate Transistors

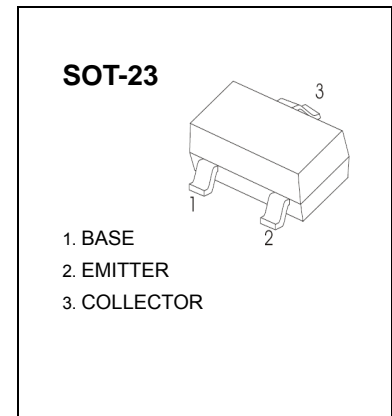
## S9014 TRANSISTOR (NPN)

### FEATURES

- Complementary to S9015

MARKING: J6

MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)



Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	50	V
V <sub>CEO</sub>	Collector-Emitter Voltage	45	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	0.1	A
P <sub>C</sub>	Collector Power Dissipation	0.2	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 100μA, I <sub>E</sub> =0	50			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 0.1mA, I <sub>B</sub> =0	45			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =50 V, I <sub>E</sub> =0			0.1	μ A
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> =35V, I <sub>B</sub> =0			0.1	μ A
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 3V, I <sub>C</sub> =0			0.1	μ A
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> = 1mA	200		1000	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100 mA, I <sub>B</sub> = 5mA			0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100 mA, I <sub>B</sub> = 5mA			1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> = 10mA f=30MHz	150			MHz

### CLASSIFICATION OF h<sub>FE</sub>

Rank	L	H
Range	200-450	450-1000

# Typical Characteristics

# S9014

